fully paid for by TWTC) can be purchased from the ILEC for $1 and reused elsewhere in TWTC's network once the cutover is completed, TWTC must essentially duplicate its equipment costs to establish a physical arrangement. Most ILECs do allow CLECs in virtual arrangements to "buyback" their equipment, but SBC has refused to do so.[54] Given the high cost of purchasing new equipment, such refusal effectively forecloses any transition to physical from virtual collocation in the SBC region. The FCC must therefore require SBC to permit competitive LECs to purchase virtual collocation equipment for use in physical collocation arrangements.[55]

Furthermore, since space limitations may continue to make virtual collocation necessary in certain situations, the Commission should also work to reduce the cost of those arrangements. In the past, the FCC was unwilling to require incumbent LECs to allow collocators to purchase collocated equipment, and sell it to the incumbent who would then lease it back to the collocator. Rather, the FCC has allowed incumbents to purchase collocated equipment themselves for lease (reflecting

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54 See Ameritech Operating Companies Revisions to Tariff F.C.C. No. 2, et al., DA 94-1421, *Order*, 7 RR 2d. (P & F) 1410, ¶ 8 (rel. Dec. 9, 1994).

55 Moreover, several provisions of physical collocation tariffs should be reviewed. Since TWTC was forced to use virtual collocation instead of physical collocation, many of the nonrecurring charges associated with the establishment of physical arrangements may be inappropriate and unreasonable. Requiring TWTC and other CLECs to then go through the same time-line and to pay nonrecurring charges again for many of the same functions would be unreasonable.

the full price paid by the incumbent to collocators.[56] The FCC determined that a sale-lease-back arrangement granted the collocator substantial ownership in the equipment in violation of the D.C. Circuit decision overturning the physical collocation rules.[57] But incumbents do not have the incentive to find the most efficient provider of the equipment in question.[58] Now that Congress has granted the FCC explicit authority to require physical collocation, the Commission is free to require incumbents to enter into sale-lease-back arrangements. It should therefore do so.

Second, to improve the incumbents' performance in provisioning collocation, the Commission should adopt performance measures (defining the kind of information incumbents should record), benchmarks (establishing specific time-frames as presumptively reasonable), and penalties for failure to meet benchmarks. TWTC recommends adoption of measures and benchmarks adopted by the Local Competition Users Group in Version 7.0 of its Service Quality Measurements attached hereto as Appendix B,

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56 See id. at ¶ 124. (stating that LECs "are not required to purchase the equipment from interconnectors"). Similarly, the FCC has not required incumbents to enter into $1 lease-back arrangements whereby the collocator would purchase the equipment and then sell it to the incumbent for $1 or some other nominal sum. See id. at ¶ 127.

57 See id.

58 The Commission recognized this fact when it established the mandatory virtual collocation regime. See id. at ¶ 124 ("in purchasing equipment, LECs do not have an incentive to obtain the lowest possible price, since their costs will be passed on to their competitors, the interconnectors").

although states should be free to adopt further, complementary requirements.

Third, TWTC strongly supports the Commission's tentative conclusion that it should require incumbents to allow collocators to (1) share collocation cages, (2) use collocation cages of any size without a minimum requirement, and (3) use "cageless" collocation.[59] As explained in more detail in the comments submitted by ALTS in this proceeding, these arrangements allow competitors to use central office space more efficiently, and can reduce the cost of collocation. Maintaining only traditional physical collocation requirements hastens space exhaustion and needlessly denies the benefits of physical collocation to CLECs who cannot gain access to physical space. The right to physical collocation set forth in the 1996 Act should not be automatically prohibited by ILECs' unilateral refusal to allow alternatives to traditional caged physical collocation. While TWTC recognizes that there will be wire centers where space for physical collocation may be legitimately exhausted, lack of space for <u>traditional</u> physical collocation should not mean that ILECs can immediately deny its important benefits. The Commission's adoption of its alternative space proposals in the <u>Notice</u> will result in more competitors that can physically collocate their own equipment, and hence more robust competition.

Additionally, a wire center that is deemed to be out of space may later have space become available. For example, an

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59 <u>See</u> <u>Notice</u> at ¶ 137.

ILEC may renovate and expand the building, or an older, larger switch could be replaced by a newer, smaller switch. A CLEC should be able to convert any existing virtual collocation arrangement into a physical arrangement at the time space becomes available on a first come first serve "waiting-list" basis. As discussed above, title to the equipment would be transferred to the CLEC for $1. Finally, where innovative collocation arrangements have proved workable in one ILEC's central offices, there should be a strong presumption that all other ILECs are technically capable of offering the same collocation arrangement (subject to space constraints).

V. CONCLUSION

For the reasons explained herein, the Commission should abandon its proposal to allow incumbent LECs to provide advanced services via a separate affiliate. Rather, the Commission should focus its attention on removing barriers to competitive entry into the advanced services market. Most importantly, the Commission should revise its collocation rules to improve the cost of collocation, improve ILEC provisioning performance, and require more efficient use of central office space.

Respectfully submitted,

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ATTORNEYS FOR TIME WARNER TELECOM

September 25, 1998

APPENDIX A

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Deployment of Wireline	)	CC Docket No. 98-147
Services Offering Advanced	)	
Telecommunications Capability	)	

DECLARATION OF LELAND L. JOHNSON, Ph.D.

I, Leland L. Johnson, declare the following:

I am a consultant in telecommunications economics residing in Woodland Hills, California. I retired in March 1993 from the RAND Corporation, Santa Monica, California, where I had been employed, with two interruptions for government service, since 1957. I received my Ph.D. in Economics from Yale University in 1957. During 1978-1979, I was Associate Administrator for Policy Analysis and Development in the National Telecommunications and Information Administration in Washington D.C. During 1967-1968, I was Research Director of the President's Task Force on Communications Policy in Washington. In these capacities, I have written widely on issues of monopoly and competition, government regulation, and appropriate public policy. In recent years, I have focused on telephone company entry into new services, including effects of advances in fiber optics and other technologies. I have presented numerous seminars and briefings, and have testified before Congressional subcommittees and government administrative agencies. I am author of the book *Toward Competition in Cable Television* published in 1994. An attached resume describes my professional experience in further detail.

BACKGROUND

Ameritech, Bell Atlantic, SBC and US West have filed petitions with the Commission requesting, among other things, that the Commission forbear from applying the requirements of Sections 251(c) and/or 271 of the Telecommunications Act of 1996 with respect to the provision of advanced services. The Commission has denied these requests for forbearance on grounds that "Congress did not provide us with the statutory authority to forbear from these critical market-opening provisions of the Act until their requirements have been fully implemented."[1] At the same time, the Commission proposes an optional alternative. It tentatively concludes that "if an incumbent LEC chooses to offer advanced services through an affiliate that is truly separate from the incumbent, that affiliate would not be deemed an incumbent LEC and therefore would not be subject to incumbent LEC regulation, including the obligations under Section 251(c)."[2] The Commission goes on to propose specific structural separation and nondiscrimination requirements for exemption by the affiliate. I have been asked by Time Warner Telecom to evaluate the adequacy of the Commission's proposed approach in guarding against anticompetitive behavior by the ILEC and its affiliate.

CONCLUSIONS

Despite the numerous proposed conditions to be met for exemption from 251(c) obligations, a threat of anticompetitive conduct remains. To be sure, structural separation requirements are advantageous in rendering transparent transactions between ILEC and affiliate and, with explicit nondiscrimination rules, reducing the likelihood of the most egregious forms

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[1] Notice of Proposed Rulemaking, FCC 98-188. Released August 7, 1998, at ¶12. (Hereinafter "NPRM").

[2] Id. at ¶83.

of discrimination. Yet, if the ILEC is intent on favoring its affiliate, paths remain open for doing so. My concerns stem from two sources, (a) the daunting task of protecting against discrimination in the face of widely varying demands for goods, services, facilities and information by both the affiliate and its competitors from the ILEC, and (b) the threat of cross-subsidization despite the presence of price caps and enforcement of the Commission's accounting rules.

PROPOSED REQUIREMENTS

A condensed tabulation of the Commission's proposed structural separation and nondiscrimination requirements provides a convenient point of departure:

> First, the incumbent must "operate independently" from its affiliate. In particular, the incumbent and affiliate may not jointly own switching facilities or the land and buildings on which such facilities are located. In addition, the incumbent may not perform operating, installation, or maintenance functions for the affiliate.
>
> Second, transactions must be on an arms's length basis, reduced to writing, and made available for public inspection.
>
> Third, the incumbent and affiliate must maintain separate books, records, and accounts.
>
> Fourth, the incumbent and advanced services affiliate must have separate officers, directors, and employees.
>
> Fifth, the affiliate must not obtain credit under any arrangement that would permit a creditor, upon default, to have recourse to the assets of the incumbent.
>
> Sixth, the incumbent LEC, in dealing with its advanced services affiliate may not discriminate in favor of its affiliate in the provision of any goods, services, facilities or information or in the establishment of standards.
>
> Seventh, an advanced services affiliate must interconnect with the incumbent LEC pursuant to tariff or pursuant to an interconnection agreement, and whatever network elements, facilities, interfaces and systems are provided by the incumbent LEC to the affiliate must also be made available to unaffiliated entities.[3]

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[3] Id. at ¶96.

I presume that these requirements will be interpreted by the Commission consistently with those set down in its Non-Accounting Safeguards Order[4] applied to the Bell Operating Companies for in-region inter-LATA activities, in compliance with sections 271 and 272 of the 1996 Act. In other words, the obligations imposed on the BOCs will, presumably, be expanded to include ILEC's of concern in this proceeding.

In light of the preceding considerations, my concerns about potential anticompetitive conduct fall into two categories:

- The problem of maintaining nondiscriminatory treatment in the face of heterogeneous demands by both the affiliate and competitors on the ILEC. The dynamic emergence and growth of advanced services, with unpredictable and highly varying needs among the participants, will only exacerbate this challenge.
- The inadequacy of safeguards against cross-subsidization. Despite the adoption of price caps and enforcement of the Commission's accounting rules, a threat of anticompetitive cost misallocations exists for services shared by the ILEC and its affiliate.

THE CHALLENGE OF PROTECTING AGAINST DISCRIMINATION

Deterring discrimination (at least in appearance) would be simplified if the Commission and state regulators could hold simply to the requirement that the ILEC treat all competitors in the same manner that it treats its advanced services affiliate -- the same requirement to which the BOCs and their affiliates are subject under Section 272(c)(1). As is widely recognized, however, the differing needs of ILEC wholesale customers dictate that more is needed if true equality of

[4] First Report and Order, Non-Accounting Safeguards, 11FCC Rcd 21905 (1996), (hereinafter "Non-Accounting Safeguards").

treatment is to be assured. In the Commission's words with respect to the BOCs, "potential competitors ... argue that a BOC should be required to provide different goods, services, and facilities to other entities than it provides to its own affiliate in order to provide 'functional equality' or service of equal quality."[5] As the Commission further notes:

> AT&T points out that, if nondiscrimination in Section 272(c)(1) means only that a BOC has to provide the goods, services, facilities, and information to an unaffiliated entity that it provides to its own affiliate, the options available to competitors would be confined entirely to those the BOC affiliate finds useful. This, some commenters claim, may give BOCs an incentive to design interfaces that work optimally only with its affiliate's specifications, and not the specifications of other entities or to discriminate against unaffiliated entities by anticompetitively cooperating in the development of new services with its affiliate.[6]

Responding to such concerns, the Commission emphasizes that other elements of the legal framework together are adequate to protect against anticompetitive behavior in the face of heterogeneous carrier needs. First, the Commission has interpreted another section of the Telecommunications Act -- 251(c)(2) -- to mean that "to the extent a carrier requests interconnection that is of a superior or lesser quality than the incumbent LEC currently provides, the incumbent LEC is obligated to provide the requested interconnection to the extent technically feasible."[7] It also points to the Communications Act which "imposed certain pre-existing nondiscrimination requirements," among them Section 201 which obligates all common carriers

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[5]Non-Accounting Safeguards at ¶201.

[6]Id. [footnotes omitted].

[7]Id. at ¶203. The Commission's decision to require the LEC to provide interconnection (as well as unbundled elements and access to elements) of "superior" quality to that which the LEC supplies to itself was overturned in Iowa Utilities Bd. v. F.C.C., 120 F.3d 753, 812-813 (8th Cir. 1997). Unfortunately this decision may unduly constrain competing carriers whose needs differ substantially from those of the ILEC and its affiliate.

to furnish telecommunications services "upon reasonable request therefor."[8] The Commission notes also that various state provisions render anticompetitive behavior unlawful with respect to intrastate services. It quotes a Michigan statute under which "a provider of basic local exchange service shall not refuse or deny access service or be unreasonable in connecting another provider to the local exchange, whose product or service requires novel [my emphasis] or specialized access service requirements."[9]

I conclude that, as practical matter, provisions of this regulatory framework will be extremely difficult to enforce against an ILEC intent on favoring its affiliate. To illustrate, let us consider four hypothetical scenarios:

Scenario 1: Competitor W seeks access to a specified unbundled network element -- but under terms somewhat different from those obtained by the affiliate (posted on the Internet for public review) with the ILEC. The ILEC claims that these new terms involve additional costs to be borne by W. Although these costs seem abnormally high to W, there is no hard evidence that they are unreasonable. The raw data to support the higher cost estimates are held as proprietary by the ILEC; moreover, how the data are manipulated to derive the overall (apparently high) totals is most unclear to W.

Scenario 2: Competitor X seeks access to a network element on the same terms afforded by the ILEC to its affiliate a year ago. In the meantime, however, because that portion of the network is being reconfigured, the ILEC claims the service can be provided to X only with a delay of four months. Although any offering made available to the affiliate must be made available on the same terms to others, the ILEC maintains that this is a different offering with

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[8] Id. at ¶211.

[9] Id. at n. 509.

new capabilities. Despite the ILEC's assertion that a faster response is not technically feasible, X fears that the ILEC is stalling. Because this is a special case with few instances of past experience to draw from, however, X lacks evidence with which to file a formal complaint.

Scenario 3: Competitor Y signs a contract for a service involving equipment somewhat different from that provided to the affiliate at a cost premium Y is willing to pay. However, the contract specifies maximum ILEC response times for repair requests markedly higher than that for the affiliate. The ILEC claims that the new equipment is harder to trouble shoot and repair and that a contingency or risk allowance is needed since neither the ILEC or other firms have had much field experience with the new, state-of-the art gear. While Y concludes that these allowances are excessive no avenue of formal complaint is promising.

Scenario 4: The ILEC and its affiliate enter into an interconnection agreement that to competitor Z and others seems especially well tailored to meeting the affiliate's needs. While competitor Z, accordingly, is entitled to an agreement with the same terms and conditions, some of these are quite unfavorable to Z in light of its own needs. Instead, it negotiates with the ILEC a new agreement that, however, also disadvantages Z in competing with the affiliate. Z is caught in a bind from which it sees no escape.

Three points are worth emphasizing with respect to these scenarios:

First, the separation and nondiscrimination requirements proposed by the Commission are of little immediate assistance to W,X,Y and Z. Separate books, records, and accounts are being maintained, all transactions are reduced to writing, and whatever network elements, facilities, interfaces and systems are provided to the affiliate are indeed being provided to others under the same terms. While the incumbent is enjoined to "operate independently" from its affiliate, these scenarios illustrate how difficult is the task of enforcement.

Second, the situation is made all the more difficult by the highly dynamic emergence and evolution of advanced services. The essence of competition is the marketplace clash of entrepreneurial approaches to seizing opportunities and solving problems -- some marked by failure, others by success. In this maelstrom, the ILEC will face new and novel demands quite unprecedented in today's mature circuit switched telephone networks. These demands will only intensify with the growth of packet-switched telephony and other offerings, evolving into full service advanced networks. The leeway for discriminatory behavior, and the task of detecting it and seeking remedies, will correspondingly be magnified.

Third, the ability of the ILEC to favor its affiliate will be enhanced the better information it has about the affiliate's and competitors' business plans and strategy. To what extent would it be able to obtain such sensitive information, in light of the "arms length" relationship that is to be maintained? Three sources of information immediately come to mind.

(a) Terms of Contracts. The ILEC might draw from the characteristics of contracts with its affiliate and competitors to piece together key ingredients of their business plans. Despite non-disclosure agreements, it would be difficult to ensure against the ILECs using the information strategically. Moreover, the larger is the ILEC or its holding company (e.g. an RBOC), the greater the volume of transactions with the affiliate and competitors and the more accurately could it infer the business plans of its affiliate and competitors.[10]

(b) Shared Services. Although the Commission proposes to prohibit shared provision of operating, installation, and maintenance functions, it would, presumably, permit

[10]Such strategic use of information by the ILEC facilitated through horizontal integration constitutes one reason why mergers involving RBOCs should be regarded with skepticism (e.g. the currently proposed SBC-Ameritech merger).

the sharing of other services as it does today with respect to BOCs.[11] While recognizing the potential for anticompetitive abuse of joint arrangements, the Commission is also concerned about possible losses of economies of scope and scale. Balancing these considerations, the Commission concludes "We do not believe that the competitive benefits of allowing a BOC and a Section 272 affiliate to achieve such efficiencies are outweighed by a BOC's potential to engage in discrimination or improper cost allocation".[12]

An additional consideration, however, is the potential for shared activities to provide a conduit for transferring information about the affiliates' business planning. It is easy to imagine how sharing of administrative and marketing functions (as two examples) would contribute to information leaks valuable for strategic behavior by both the ILEC and its affiliate.

(c) Intermixing of Employees. The provision that the affiliate "must have separate officers, directors, and employees" has been interpreted by the Commission as dictating that "the same person may not simultaneously serve as an officer, director, or employee of both a BOC and its Section 272 affiliate".[13] Thus, for example, an individual may not be on the payroll of both organizations at the same time. Nothing, however, prevents an individual from transferring from one to the other. Nor would employees of both organizations be prohibited from working side by side. Despite nondisclosure agreements, it is difficult to imagine

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[11] Non-Accounting Safeguards at ¶178.

[12] Id. at ¶179.

[13] Id. at ¶178.

that the ILEC would be wholly denied useful information about its affiliate's planning.

CROSS-SUBSIDIES IN SHARED SERVICES

The Commission based its decision to permit some forms of service sharing on the belief that its price cap regime and accounting rules will adequately protect against improper cost allocations and the attendant threat of anticompetitive cross-subsidy.[14] However, both of these tools have limitations.

Price Caps as a Safeguard. The Commission is to be commended for abandoning the use of multiple X-factors and sharing of earnings formulas that were key ingredients of its interim price cap plan adopted for the LECs in March 1995.[15] Being susceptible to gaming, the plan offered the potential for LECs to shift a portion of their competitive service costs to their regulated activities.[16] Three considerations are notable in the new plan.

First, of critical importance is that estimated productivity growth must be based on sufficiently broad-based industry averages to preclude the ILEC from influencing the magnitude of the X-factor through its own behavior. This condition of independence is not easy to maintain. Given a host of market-specific and other pressures, ILECs must be expected to vary substantially

[14]Id. at ¶181.

[15]Fourth Report and Order, Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, FCC 97-159 (released May 21, 1997). (Hereinafter "Price Cap Order").

[16]The problem of gaming enabled by inclusion of multiple X-factors and earnings sharing is discussed in my previous Declaration, Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, December 8, 1995. Reply Declaration, January 8, 1996 (on behalf of the National Cable Television Association, New Jersey Cable Television Association and Adelphia Cable Communications)

in their productivity performance. Consequently, for any given X-factor, some will earn much more than others. For those able to earn large "excessive" amounts, outcry will surely be heard to have the X-factor raised. Indeed, at this writing several groups charge that industry-wide X-factor of 6.5 percent set by the Commission is too low.[17] At the other end, ILECs whose earnings are jeopardized will urge that a lower X-factor be adopted, at least for them.[18]

Second, ongoing changes in ILEC market structure are highly relevant. Although individual operating companies working independently can be assumed as too small to significantly affect industrywide productivity measures, their coordination through holding companies (the RBOCs being the prime example) magnifies their impact. Mergers among RBOCs reduce further the independence of industrywide productivity measures from RBOC behavior. Lamentably, the current merger movement weakens price cap safeguards against cross-subsidization. The larger is a consolidated group of ILECs, the greater is the effect of its own performance on industrywide productivity measures, and the more are outcomes tainted by cost-based pricing: The smaller is its rate of cost decline (as affected by cost shifts from the competitive sector) relative to output growth, the smaller therefore is its measured productivity growth, the smaller is the industrywide X-factor, and the higher are the prices permitted under the relaxed price cap constraints.

With continuing uncertainties and controversies about the appropriate level of the X-factor, and the LECs to which it should be applied, the Commission plans to review the program within a relatively short time -- "about two years from now."[19] Combined with the debilitating effects

[17]"End users, IXCs criticize FCC's 'X-factor' Decision," Telecommunications Reports, August 17, 1998 at 8.

[18]"Lawmakers Want X-factor Relief for Midsize Telcos," Id. at 9.

[19]Price Cap Order at ¶166.

of growing vertical integration on price cap regimes, we must be alert to incentives that remain to shift costs from competitive to regulated activities.

Third, in terms of potential cost shifting to basic telephone ratepayers, state regulatory programs are of central concern. By early 1998, some 37 of the 50 states plus the District of Columbia had adopted price cap regimes.[20]

We must regard this movement with caution, however. It is not clear from the available data the degree to which LECs are able to keep all they earn under whatever price cap constraints are in place. At least two states -- California and New Jersey -- impose earning sharing obligations in combination with price caps.[21] Others may have special treatment for excess earnings. As one example, the price cap program for Southern New England Telephone, adopted in 1996, involves a 5 percent productivity offset and a mechanism by which the Department of Public Utility Control is to monitor SNETs earnings over a 5-year period.[22]

> [A]t such time in the future that SNET has cumulative excess earnings greater than the $336,192,000 depreciation reserve deficiency provided by this Decision as a non-expensed residual, SNET shall submit a plan to the Department that outlines its proposal for the disposition of its excess earnings. [23]

Thus, the company does not enjoy complete freedom in using its excess earnings, but must conform to a plan subject to regulatory approval.

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[20]State Telephone Regulation Report, White Paper, "Regulation of Major Telcos in Eastern U.S." (April 3, 1998); "Regulation of Major Telcos in Western U.S.," (April 17, 1998). For a detailed analysis of performance-based plans, e.g: revenue-sharing, earnings-sharing, and price cap programs see D.E.M. Sappington and D.L. Weisman, Designing Incentive Regulation for the Telecommunications Industry, (MIT Press, 1996).

[21]Id., at 3, 1, respectively.

[22]Connecticut Department of Public Utility Control, Decision, Docket No. 95-03-01, March 13, 1996.

[23]Id. at 14.

More generally, while SNET is not automatically assured of a reasonable return, productivity adjustments at the end of the five years cannot ignore SNETs intervening costs and rates of return. The sensitivity of regulators in Connecticut -- as elsewhere -- to the regulated firms's financial performance is reflected in the Department's statement in its price cap decision that a "successful" price cap formula will "fully compensate the provider firm for the real (inflation-adjusted) cost of producing its services."[24]

Overall, while properly designed price caps reduce incentives to cross-subsidize, here -- as so often elsewhere -- the devil lies in the details.

Cost Accounting as a Safeguard. Since the Commission relies on accounting rules to protect against cost misallocations and the threat of cross-subsidy, we must recognize the potential critical differences in outcomes between using those rules and using economic analysis. With a hypothetical illustration, I will show how cross-subsidization may arise in the relevant economic sense while escaping detection under Commission-mandated accounting procedures.

According to these procedures, carriers are required "to assign costs directly, whenever possible, to regulated or nonregulated activities."[25] As a simple illustration of how that principle is applied, consider an example the Commission itself uses involving a motor vehicle investment to be apportioned between regulated and nonregulated activities.[26] Table 1, illustrating this point, shows a $100 investment "directly" assigned on the basis of usage to regulated (R) and

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[24]Id. at 164. More constructively, the Department might have said that a "successful" price cap plan is one that stimulates the LEC to become more efficient than otherwise, with the LEC permitted to keep excess earnings as its reward.

[25]Accounting Safeguards Order at ¶57.

[26]Id. at n. 143.

nonregulated (competitive or C) activities. The Commission then treats "indirect attribution" which occurs

> when common costs are allocated between regulated and nonregulated activities based on indirect measures of cost-causation. For example, if investment in garage work equipment is apportioned between regulated and nonregulated [activities] in proportion to the overall apportionment of motor vehicle investment, the costs are indirectly attributed.

With that guidance, Table 1 shows garage equipment investment (common cost) of $70 apportioned "indirectly" based on relative vehicle usage. In total, $136 and $34 are assigned respectively to the regulated and competitive sectors.

Table 1
ACCOUNTING ATTRIBUTION OF COSTS

	Vehicle	Equipment	Totals
Investment	$100	$70	$170
Usage	80 hours R 20 hours C	--- ---	
Assigned	$80 to R $20 to C	$56 to R $14 to C	$136 to R $34 to C

In contrast, let us draw from the Commission's example to show how cross-subsidization may arise. Critical is the notion of the incremental cost incurred by the firm in offering a given service in addition to whatever other services it provides. The "stand-alone" test is used for measuring incremental cost and relating it to possibilities of cross-subsidization.[27]

[27]G.R. Faulhaber, "Cross-Subsidization: Pricing in Public Enterprises," 65 American Economic Review (1995) pp. 966-977.

Table 2
ECONOMIC ATTRIBUTION OF COSTS

		Investment $
1.	Stand-Alone Service R	120
2.	Stand-Alone Service C	70
3.	Combined R & C	170
4.	Common Investment (1+2-3)	20
5.	Incremental Investment R (3-2)	100
6.	Incremental Investment C (3-1)	50

In Table 2, the investment for vehicle services is shown on a stand-alone basis for the regulated sector R as $120 (with vehicles and equipment lumped together), while the stand-alone figure for the nonregulated competitive sector C is $70. The investment for serving both sectors together is $170 -- the same figure shown in Table 1 for vehicles ($100) and equipment ($70). The savings of $20 afforded by combining the services is the common cost -- a measure of economies of scope. The incremental investment for R is the difference between the stand-alone investment for C and the investment for the two jointly. That is, if the alternative is to serve R alone, the additional investment for C -- $50 -- is the incremental investment associated with C.

Critical for our purposes is that the $50 incremental investment for C exceeds the $34 figure allocated to C under the Commission's accounting rules. Thus, if only $34 is assigned to C, and $136 assigned to R, cross-subsidization involving a transfer of $16 occurs. Customers of the regulated sector pay $16 more for vehicle services than they would if those services were provided to them on a stand-alone basis. Correspondingly, customers of the competitive sector benefit because they pay $16 less than the cost they impose.

Of course, by using other figures (but with the $170 joint investment held constant), I could have calculated an incremental investment for C less, rather than greater, than the figure dictated by use of accounting techniques. In any event, the lesson of this exercise is that relative usage provides an unreliable basis for tracing cost causation.

In these examples, usage would be a measure of cost causation if elimination of vehicle use by C would have reduced investment also by 20 percent -- equal to the same percentage of use for which C was responsible. But there is no reason to believe that such a 1-to-1 correspondence generally prevails in telecommunications -- or anywhere else. On the one hand, elimination of C's use might have reduced total investment very little, with perhaps most of the vehicles needed for R in any event. On the other hand, costs could fall by more than 20 percent as illustrated by my figures in Table 2. Such a result could arise if inclusion of C puts special demands on the system.

Of course, the Commission recognizes the important role of stand-alone comparisons. In its Local Competition Order, the Commission emphasizes that for unbundled network elements " in no instance should prices exceed the stand-alone cost for a specific element, and in most cases they should be below stand-alone costs."[28] Despite this dictum, the use of the Commission's accounting rules for services shared by the ILEC and its affiliate cannot be relied upon to produce subsidy-free outcomes.

CONCLUDING REMARKS

The central question in this proceeding is whether, under the Commission's proposal, the affiliate will be "truly separate" from the ILEC; hence, not itself be an ILEC and thus not subject to section 251(c) and other regulatory requirements. My analysis casts doubt on the notion that true separateness would be achievable under the Commission's proposal. If the ILEC seeks to

[28]First Report and Order, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 11 FCC Rcd 15499 (1996) at ¶698.

favor the affiliate it will find ways to do so. In the Commission's words, "We recognize that no regulatory scheme can completely prevent or deter discrimination, particularly in its more subtle forms."[29] The Commission's admission is stunningly on mark in this proceeding.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on September 19, 1998

Leland L. Johnson

[29] Non-Accounting Safeguards at ¶19.

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1965-1966--Visiting Professor, International Trade and Economic Growth, Claremont Graduate School.

1958-1959--Lecturer, (Statistics for Economics and Business), California State College at Northridge.

Telecommunications Policy. Dr. Johnson has evaluated the prospects for direct satellite broadcasting, the use of telephone company facilities, and other means, as competitive alternatives to cable television. He earlier dealt with issues of (a) regulating international telecommunications in response to a growing competitive market structure, (b) maintaining universal domestic telephone service in response to pressures to increase rates for local service, and (c) the role of compatibility standards in telecommunications competition and innovation. As Associate Administrator for Policy Analysis at NTIA in 1978-1979, Dr. Johnson's responsibilities included recruiting staff for a research and analysis office of about 40 staff members, His office focused on issues of (a) restricting government regulation in the domestic telephone and broadcasting fields, (b) expanding competitive pressures in the international communications industry, (c) possibilities for making more effective use of the radio spectrum, and (d) drafting legislation for the Administration and pursuing other policy options in response to problems of protecting individual privacy posed by the rapid growth of computer-based information systems. As Director of Research, President's Task Force on Communications Policy, he directed the staff activities and preparation of the Final Report (the "Rostow" report) delivered to the President in 1968. The report and accompanying staff papers addressed a wide range of issues in the telephone, cable, and broadcasting fields, with numerous specific recommendations for national policy.

PROFESSIONAL MEMBERSHIPS/HONORS

Chairman, Board of Directors, Telecommunications Policy Research Conference, Washington, D.C., 1992.

Chairman, Organizing Committee, Seventeenth Annual Telecommunications Policy Research Conference, Airlie House, VA, 1989.

Board of Directors, Annual Telecommunications Policy Research Conference, 1989-1992.

Board of Directors, International Institute for Communications 1971-1978.

Advisory Board, Committee for Economic Development, 1975.

Telecommunications Panel, American Society of International Law, 1973-1975.

Telecommunications Committee, the Twentieth Century Fund, 1969-1970.

American Economics Association Sterling Fellowship, Yale University, 1955.

PUBLICATIONS

Book

Toward Competition in Cable Television (MIT Press and AEI Press) 1994.

Journal Articles

"The Potential of Direct Broadcast Satellites for the United States, *Space Policy*, (with Deborah Castleman). November 1992.

"Telephone Company Entry into Cable Television," *Telecommunications Policy*, (with David Reed). March 1992.